



Synonyms

KDR, CD309, FLK1, VEGFR, VEGFR2

Source

Cynomolgus VEGF R2 Protein, His Tag (VE2-C52H4) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Gln 758 (Accession # [EHH53800.1](#)).

Predicted N-terminus: Ala 20

Molecular Characterization

VEGF R2 (Ala 20 - Gln 758)
EHH53800.1

Poly-His

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 84.5 kDa. The protein migrates as 110-150 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

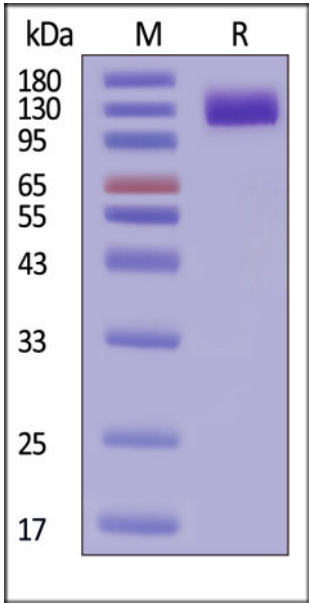
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

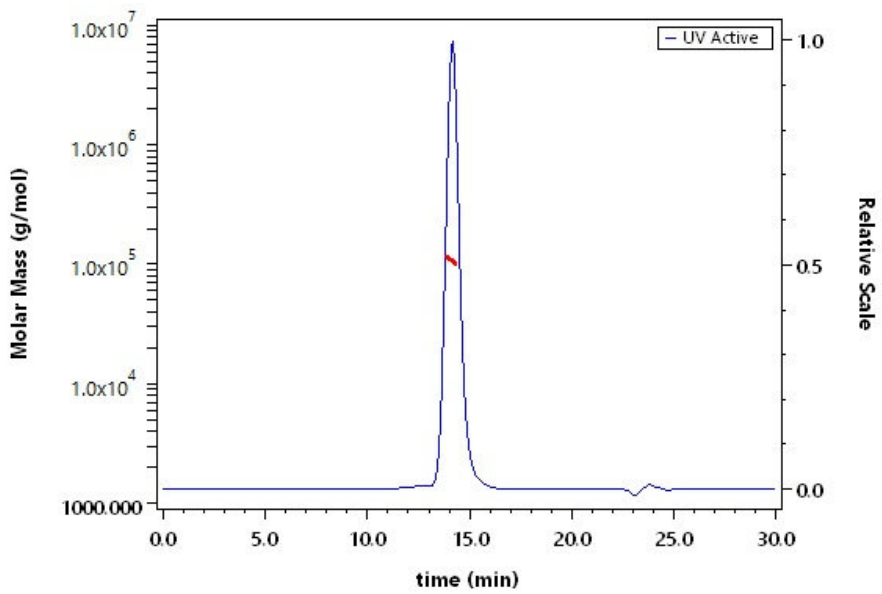
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



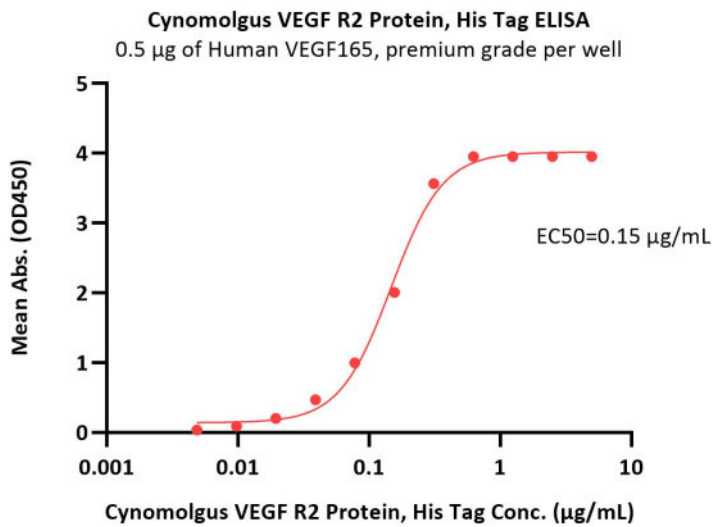
Cynomolgus VEGF R2 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



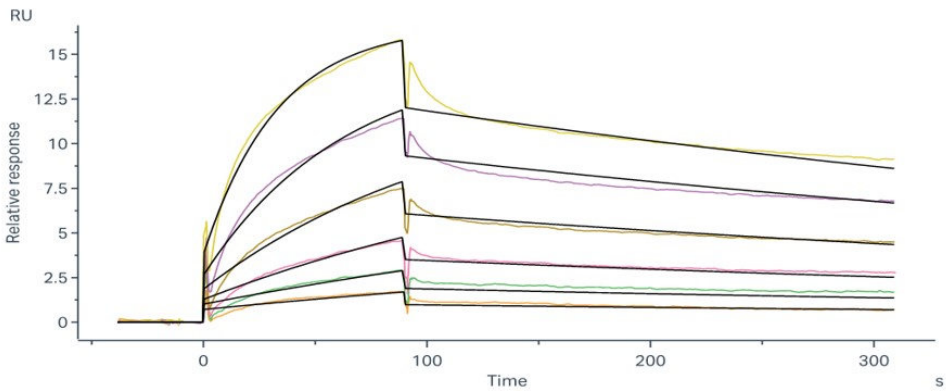
The purity of Cynomolgus VEGF R2 Protein, His Tag (Cat. No. VE2-C52H4) is more than 95% and the molecular weight of this protein is around 90-120 kDa verified by SEC-MALS.

Activity-ELISA



Immobilized Human VEGF165, premium grade (Cat. No. VE5-H4210) at 5 µg/mL (100 µL/well) can bind Cynomolgus VEGF R2 Protein, His Tag (Cat. No. VE2-C52H4) with a linear range of 0.005-0.313 µg/mL (QC tested).

Activity-SPR



Cynomolgus VEGF R2 Protein, His Tag (Cat. No. VE2-C52H4) immobilized on CM5 Chip can bind Human VEGF165, His Tag (Cat. No. VE5-H5248) with an affinity constant of 2.64 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Kinase insert domain receptor (KDR), also known as CD309, FLK1 and VEGFR-2, is one of the subtypes of the VEGF receptor family. VEGF receptors bind vascular endothelial growth factor (VEGF). There are three main subtypes, numbered 1, 2 and 3. They each contain an extracellular region with 7 immunoglobulin-like domains, a single transmembrane helix, and an intracellular split tyrosine kinase domain. VEGF-A binds to VEGFR-1 (Flt-1) and VEGFR-2 (KDR/Flk-1).

VEGFR-2 mediates nearly all known cellular responses to VEGF. VEGFR-1 is less well defined but is thought to modulate VEGFR-2 signaling; it may also act as a decoy receptor that sequesters VEGF, a role particularly important during embryonic vasculogenesis. Additionally, VEGFR-2 can directly interact with extracellular HIV-1 Tat protein, and this interaction appears to enhance angiogenesis in Kaposi's sarcoma lesions.



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